

OGMCOAL DNR <ogmcoal@utah.gov>

## Monitoring Report South Fork of Quitchupah Creek

1 message

Vicky Miller < vmiller@bowieresources.com>

Wed, Sep 24, 2014 at 1:40 PM

To: "Steve Christensen (stevechristensen@utah.gov)" <stevechristensen@utah.gov>, "Amanda Daniels (amandadaniels@utah.gov)" <amandadaniels@utah.gov>, "Hamilton, Rob -FS (rhamilton@fs.fed.us)" <rhamilton@fs.fed.us>

Cc: "OGMCOAL OGMCOAL (OGMCOAL@utah.gov)" <OGMCOAL@utah.gov>, John Byars <jbyars@bowieresources.com>, Wyatt Shakespear <WShakespear@bowieresources.com>

On September 9th the flow in the South Fork of Quitchupah Creek was estimated at 90 gpm, on Sept. 15 the flow was estimated at slightly over 100 gpm (imgp 4237, 4245). Approximately 1.3 inches of rain fell at the mine site during the two week period. Muddy Creek where it crosses Highway 10 was observed to be sediment laden and close to flooding it's banks on the afternoon of Sept. 19.

During the two week period (Sept 8 – 21) the canyon was walked to look for new subsidence cracks, no cracks were found. Flow was observed to be similar in the channel above the road culvert and below the road at all photo point locations. Although the ponds being monitored were all observed to be dry on September 18th, cattle were laying and grazing around them. The springs associated with the So. Fork of Quitchupah drainage were observed to be flowing (imgp 4234).

Attached is a drawing showing the location of mining on September 21, 2014. Please let me know if you have questions or need additional information. Thanks, Vicky

From: Vicky Miller

Sent: Monday, September 8, 2014 10:08 AM

To: 'Steve Christensen (stevechristensen@utah.gov)'; 'Hamilton, Rob -FS (rhamilton@fs.fed.us)'; 'Amanda Daniels (amandadaniels@utah.gov)'

Cc: 'OGMCOAL OGMCOAL (OGMCOAL@utah.gov)'; John Byars; Wyatt Shakespear Subject: Monitoring Report South Fork of Quitchupah Creek

During the weeks of August 25th and September 1st, water was observed to be flowing the length of the South Fork of Quitchupah Creek (see photos). In addition, no new subsidence cracks were observed along the stream channel. The springs west of the culvert had good flow. Cows had returned to the creek area but impacts appeared minimal.

During the two week period flow when measured, varied between 90 and 130 gpm. At the mine site there was approximately 0.4 inches of precipitation during the two week period.

A drawing is attached showing the location of mining during the two week period. Please let me know if you require additional information. Thanks, Vicky

From: Vicky Miller

Sent: Monday, August 25, 2014 12:29 PM

To: 'Steve Christensen (stevechristensen@utah.gov<mailto:stevechristensen@utah.gov>)'; 'Amanda Daniels (amandadaniels@utah.gov<mailto:amandadaniels@utah.gov>)'; 'Hamilton, Rob -FS

(rhamilton@fs.fed.us<mailto:rhamilton@fs.fed.us>)'

Cc: 'OGMCOAL (OGMCOAL@utah.gov<mailto:OGMCOAL@utah.gov>)'; John Byars; Wyatt Shakespear

Subject: Monitoring Report South Fork of Quitchupah Creek

During the past two weeks flow in the South Fork of Quitchupah Creek was estimated at between 130 and 150 gpm and the flow appeared similar the length of the channel. The springs were all observed to be flowing (IMG3871). Sediment is noticeably filling the channel in the upper reaches above and below the road culvert (IMG3991).

The channel was check for cracks during this period, several small cracks (5 - 6) were repaired with bentonite between the downstream end of the culvert and monitoring location 006D. Approximately 2.38 inches of rain fell at the mine site during the two week period. Both ponds being monitored were dry except on Aug 22nd, when one pond had about a foot of water in the bottom.

A drawing showing the location of mining is attached. Please let me know if you need any additional information. Thanks, Vicky

From: Vicky Miller

Sent: Monday, August 11, 2014 11:31 AM

To: 'Steve Christensen (stevechristensen@utah.gov<mailto:stevechristensen@utah.gov>)'; 'Amanda Daniels (amandadaniels@utah.gov<mailto:amandadaniels@utah.gov>)'; 'Hamilton, Rob -FS (rhamilton@fs.fed.us<mailto:rhamilton@fs.fed.us>)'

Cc: 'OGMCOAL OGMCOAL (OGMCOAL@utah.gov<mailto:OGMCOAL@utah.gov>)'; John Byars; Wyatt Shakespear

Subject: Monitoring Report South Fork of Quitchupah Creek

During the past two weeks the flow in the South Fork if Quitchupah Creek fluctuated (160-350 gpm)due to rain storms. Water was observed to be flowing from Spring 006 (IMGP3834) to the confluence during the past weeks and the flow was estimated to be similar(IMPG3754 & 3822). The cattle population and impacts were estimated to be reduced by 70% during the two week period. The ponds listed in the mitigation plan were dry.

The channel was surveyed for cracks, no new cracks were found. Approximately 0.32 inches of rain fell in the two week period at the mine site, however there was evidence of more substantial rain falling in the vicinity of South Fork (IMGP3828). A drawing showing the location of mining is attached.

Let me know if you have any questions. Vicky

From: Vicky Miller

Sent: Monday, July 28, 2014 9:01 AM

To: 'Steve Christensen (stevechristensen@utah.gov<mailto:stevechristensen@utah.gov>)'; 'Amanda Daniels (amandadaniels@utah.gov<mailto:amandadaniels@utah.gov>)'; 'Hamilton, Rob -FS (rhamilton@fs.fed.us<mailto:rhamilton@fs.fed.us>)'

Cc: 'OGMCOAL (OGMCOAL@utah.gov<mailto:OGMCOAL@utah.gov>)'; John Byars; Wyatt Shakespear

Subject: Monitoring Report South Fork of Quitchupah Creek

During the past two weeks the South Fork of Quitchupah Creek was observed to be flowing from Spring 006 to below Wedge Spring (IMG3638). The vegetation obscured vision of the flow for a distance, but water was observed to be flowing at the confluence of the North and South Forks of the creek (IMG3728).

The channel and associated vegetation continues to be impacted by cattle (IMG3719). The channel was check for cracks and none were located.

The mine site received approximately 0.7" of rain during the past two weeks, however the ponds listed in the mitigation plan continued to be dry when checked on July 24th (IMG3734).

A drawing has been attached showing the location of mining as of July 27, 2014.

Please contact me with questions at (435) 286-4481, Vicky.

From: Vicky Miller

Sent: Tuesday, July 15, 2014 10:11 AM

To: 'Steve Christensen (stevechristensen@utah.gov<mailto:stevechristensen@utah.gov>)'; 'Amanda Daniels (amandadaniels@utah.gov<mailto:amandadaniels@utah.gov>)'; 'Hamilton, Rob -FS (rhamilton@fs.fed.us<mailto:rhamilton@fs.fed.us>)'

Cc: 'OGMCOAL (OGMCOAL@utah.gov<mailto:OGMCOAL@utah.gov>)'; John Byars; Wyatt Shakespear

Subject: Monitoring Report South Fork of Quitchupah Creek

The South Fork of Quitchupah Creek was observed to be flowing from Spring 006 to the confluence of the south fork with the north fork during the past two weeks (Photo 3423) Heavy impacts to vegetation and the stream channel from cattle immediately above and approximately 300 meters below where the creek culvert goes beneath the road were noted (Photo 3489).

The ponds listed in the mitigation plan were documented as dry on July 7, 2014. During the July 7th monitoring, the area in the creek where subsidence cracks were repaired was checked and no new cracks were found. The repairs were intact (Photo 3522) and the water flow was observed to be similar above and below the crack repair area.

The springs above the road were checked and were flowing (Photo 3488). The area received rain (approx. 0.5")the evening of the 9th.

Since the mine just completed the longwall move (thus no mining) a drawing has not been included with this report, but one will be sent with the next report.

Please contact me with questions at (435) 286-4481, Vicky.

## 7 attachments



**IMGP4171.JPG** 1843K



**IMGP4234.JPG** 1920K

**IMGP4237.JPG** 1846K





**IMGP4245.JPG** 1866K



**IMGP4266.JPG** 1944K



**P9180022.JPG** 3252K

Sept 21 2014 Mine Map.PDF 104K